

WHAT IS CLAIMED IS:

1. A process for removing calculus and other deposits from the surface of the teeth of an animal comprising the steps of:

providing a composition comprising a carrier containing an edible acid in an amount to form a solution having about pH 6.0 or less and at least one anti-irritant in an amount to suppress irritation of gum tissue, wherein said anti-irritant is a natural or artificial sweetener, and

administering said composition to a patient and dispersing said acid and anti-irritant to the surfaces of the teeth for an effective amount of time to substantially remove or loosen calculus and deposits from the teeth without irritation to the gums.

2. The process of claim 1, wherein said anti-irritant is an amount of an artificial sweetener selected from the group consisting of sodium saccharine, aspartame and cyclamates, wherein said artificial sweetener is included in the amount of about 10% to 30% by weight based on the total weight of the composition.

3. The process of claim 1, wherein said carrier is a solid.

4. The process of claim 1, wherein said carrier is water and said composition is an aqueous solution.

5. The process of claim 1, wherein said composition is a substantially dry solid, and said process comprises dispersing said composition in an aqueous carrier and thereafter administering said composition.

6. The process of claim 1, wherein said composition further comprises an anti-inflammatory agent.

7. The process of claim 1, wherein said composition further comprises at least one bioactive agent selected from the group consisting of analgesics, antibiotics, immunosuppressive agents, antifungal agents, anti-inflammatory agents, anti-bacterial agents, and mixtures thereof.

8. The process of claim 1, wherein said carrier comprises a natural sweetener selected from the group consisting of sorbitol, mannitol and xylitol.

9. The process of claim 1, wherein said aqueous composition comprises an organic acid in an amount to form a solution having a pH of less than 5.0.

10. The process of claim 1, wherein said carrier is a chewing gum base or a water soluble base.

11. The process of claim 1, wherein said edible acid is selected from the group consisting of citric acid, acetic acid, ascorbic acid, malic acid, adipic acid, fumaric acid, and mixtures thereof.

12. The process of claim 1, wherein said composition comprises ascorbic acid and citric acid in an amount to form a solution having about pH 2.0 to about pH 5.0 and said sweetener is sodium saccharin in an amount to suppress pain receptors temporarily of the gums.

13. The process of claim 1, wherein said acid is ascorbic acid and where said composition further comprises a stabilizing agent in an amount sufficient to inhibit decomposition of said ascorbic acid.

14. The process of claim 13, wherein said stabilizing agent is selected from the group consisting of magnesium salts, phosphoric acid derivatives and metabisulfite derivatives.

15. The process of claim 13, wherein said composition is an aqueous composition and where said stabilizing agent is magnesium sulfite.

16. A process for temporarily suppressing pain receptors and inhibiting pain and irritation of the oral or mucosa tissue of an animal comprising the steps of:

providing a composition comprising a carrier, at least one bioactive agent and at least one anti-irritant, said anti-irritant being a natural sweetener or non-nutritive sweetener in an effective amount to suppress the pain receptors of the tissue and to reduce pain and irritation to the tissue caused by said composition, and

contacting said oral or mucosa tissue and body fluids of said tissue with said composition to deliver said bioactive agent and anti-irritant in an amount to treat said tissue with said bioactive agent substantially without irritation to said tissue.

17. The process of claim 16, wherein said carrier is a water soluble solid or an aqueous carrier.

18. The process of claim 16, wherein said process comprises delivering said composition in the mouth of said patient.

19. The process of claim 16, wherein said composition further comprises an edible acid in an amount to form a solution having a pH sufficiently low to remove calculus deposits from the surface of the teeth, said process comprising contacting teeth of said animal for sufficient time to remove calculus.

20. The process of claim 16, wherein said bioactive agent is an anti-inflammatory agent.

21. The process of claim 16, wherein said composition further comprises an acid in an amount to provide a solution having a pH 6.0 or less.

22. The process of claim 16, wherein said composition includes at least one acid to provide a solution with a pH 2.0 to about pH 5.0.

23. The process of claim 16, wherein said acid is selected from the group consisting of citric acid, acetic acid, malic acid, adipic acid, fumaric acid, ascorbic acid, and mixtures thereof.

24. The process of claim 16, wherein said carrier is a water soluble solid and said composition comprises ascorbic and citric acid in an amount to provide a solution having a pH of 5.0 or less and said sweetener is saccharin in an amount to suppress pain receptors temporarily on the tissue being treated.

25. The process of claim 16, wherein said at least one bioactive compound is a pharmaceutically active compound selected from the group consisting of analgesics, antibiotics, antibacterial agents, anti-inflammatory agents, antifungals, immuno-suppressive agents, and mixtures thereof.

26. The process of claim 16, wherein said carrier is a chewing gum base.

27. The process of claim 16, wherein said sweetener is selected from the group consisting of saccharin, aspartame, cyclamates, and salts thereof.

28. The process of claim 27, wherein said composition comprises at least about 10% by weight of said sweetener.

29. The process of claim 16, wherein said composition further comprises ascorbic acid and a stabilizing agent in an amount effective to inhibit decomposition of said ascorbic acid.

30. The process of claim 29, wherein said stabilizing agent is selected from the group consisting of magnesium salts, phosphonic acid derivatives and metabisulfite derivatives.

31. The process of claim 29, wherein said composition is an aqueous composition and where said stabilizing agent is selected from the group consisting of cystein and magnesium sulfite.